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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/769,756	02/03/2004	Kyung-geun Lee	1293.1993	8918

49455 7590 01/30/2008
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EXAMINER

ALUNKAL, THOMAS D

ART UNIT	PAPER NUMBER
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2627

MAIL DATE	DELIVERY MODE
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01/30/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/769,756	Applicant(s) LEE, KYUNG-GEUN	
	Examiner Thomas D. Alunkal	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 7, 8, 22-25, 27-31 and 33-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 7, 8, 22-25, 27-31 and 33-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

Applicant's arguments with respect to claims 1, 7-8, 22-25, 27-31, and 33-35 have been considered but are moot in view of the new ground(s) of rejection.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 7-8, 22-25, 27-28, 31, and 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. (hereafter Ueda)(US PgPub 2001/0007545) and in view of Seishaku, Japanese Patent Publication (2000-195192)(Electronic Translation Provided).

Regarding claim 1, Ueda discloses a read-only optical information storage medium (Figure 1A, Element 101) comprising a burst cutting area having a bar code (Figure 1A, Element 102. Specifically, striped data corresponds to the bar code), a lead-in area (Figure 1A, Element 103), a data area (Figure 1A, Element 104), and a lead-out area (Figure 1A, Element 105), in which data is recorded in a form of pits (Figures 3A-3B). Ueda does not specifically disclose wherein said burst cutting area has an area in which a pattern comprising a sequence of pits is repeatedly recorded and wherein the pattern comprising the sequence of pits is other than the bar code. In

the same field of endeavor, Seishaku discloses a reproducing method for a read-only optical which comprises a burst cutting area (Paragraph 0002), where said burst cutting area comprises a sequences of pits which is repeatedly recorded and is different from the bar code (Paragraphs 0005 and 0011. It is noted that "synchronous cutting tool information" corresponds to a sync byte (see Paragraph 0003)).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide the repeated recording of control information to the BCA of Seishaku to the recording medium of Ueda, motivation being to ensure proper detection of control information even when a first detection operation is failed (Paragraph 0004 of Seishaku).

Regarding claim 7, Ueda discloses wherein at least one of the burst cutting area, the lead-in area, the user data area, and the lead-out area is divided into a plurality of sub-areas in each of which pits are formed in different pit patterns (Figure 1B, Elements 106-109 where each sub-area contains different information).

Regarding claim 8, Ueda discloses wherein the lead-in area comprises first and second areas (Figures 2A, reference signal area and control data area), pits are formed in the first area in one of a third straight pit pattern and a third pit wobble pattern, and pits are formed in the second area in one of a fourth straight pit pattern and a fourth pit wobble pattern (Figure 2A and 2B. Specifically, information in the reference signal area and the control data area is different which inherently results in different pit patterns).

Regarding claim 22, Ueda discloses wherein the data area includes a plurality of basic recording units, and run-ins and run-outs that are respectively located before and after the basic recording units (Paragraph 0009).

Regarding claim 23, Ueda discloses wherein the basic recording units are one of physical clusters, sectors, ECC blocks, and frames (Paragraph 0009).

Regarding claim 24, Ueda discloses wherein a pattern of pits formed in the basic recording units is identical to a pattern of pits formed in the run-ins and run-outs (Paragraph 0040).

Regarding claim 25, Ueda discloses wherein the pattern comprising the sequence of pits provided in the burst cutting area is formed by a recording modulation method different from a recording modulation method used to form the pits in at least one of the lead-in area, the user data area, and the lead-out area (Paragraph 0023. Specifically, the means for forming pits in the BCA is different than the modulation methods used to form pits in the remainder of the disc).

Regarding claim 27, Ueda discloses wherein the recording modulation method used in the burst cutting area is different from the recording modulation method used in at least one of the lead-in and the data area (Paragraph 0023. Specifically, the means for forming pits in the BCA is different than the modulation methods used to form pits in the remainder of the disc).

Regarding claim 28, Ueda discloses wherein the recording modulation method used in the burst cutting area, the lead-in area, and the data area is one of a RLL (d,k) modulation and a bi-phase modulation method (Figure 1A, Elements 103-105. Both

modulation methods are conventionally used to record data into the lead-in, data, and lead-out areas).

Regarding claim 31, Ueda discloses a read-only optical information storage medium (Figure 1A) comprising: a plurality of recording layers having a plurality of areas (Paragraph 0041, two-layer disc) including a burst cutting area in which data is recorded in the form of pits (Figure 1A, Element 102). Ueda does not specifically disclose wherein said burst cutting area has an area in which a pattern comprising a sequence of pits is repeatedly recorded. the same field of endeavor, Seishaku discloses a reproducing method for a read-only optical which comprises a burst cutting area (Paragraph 0002), where said burst cutting area comprises a sequences of pits which is repeatedly recorded and is different from the bar code (Paragraphs 0005 and 0011. It is noted that "synchronous cutting tool information" corresponds to a sync byte (see Paragraph 0003)).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide the repeated recording of control information to the BCA of Seishaku to the recording medium of Ueda, motivation being to ensure proper detection of control information even when a first detection operation is failed (Paragraph 0004 of Seishaku).

Regarding claim 33, Ueda discloses the reproducing apparatus (Paragraph 0022) used to reproduce contents of the read-only optical media of claim 1.

Regarding claim 34, this claim recites features similar to those recited in claims 25 and 33 and is rejected for the same reasons of obviousness used above.

Regarding claim 35, Ueda discloses wherein the pattern comprising the sequence of pits provided in the burst cutting area is formed by a recording modulation method different from a recording modulation method used to form the pits in at least one of the lead-in area, the user data area, and the lead-out area (Paragraph 0023. Specifically, the means for forming pits in the BCA is different than the modulation methods used to form pits in the remainder of the disc).

Claims 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda and Seishaku, as applied to claims 1, 7-8, 22-25, 27-28, 31, and 33-35 above, and further in view of Kondo (US PgPub 2003/0053404).

Regarding claim 29, Ueda discloses wherein at least one of the burst cutting area, the lead-in area, the user data, area, and the lead-out area is divided into a plurality of sub-areas (Figures 2A, 2B, and 2C). Ueda and Seishaku do not disclose where the pits in the sub-areas are formed using different modulation methods.

In the same field of endeavor, Kondo discloses where two different modulation methods are used in the same recording area (Paragraph 0081). Thus, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to provide the modulation methods of Kondo to the recording medium of Ueda and Seishaku, motivation being to selectively choose a proper modulation method based on the type of information recorded.

Regarding claim 30, Ueda discloses wherein the lead-in area comprises first and second sub areas, the first area uses one of the RLL(d,k) modulation method and the bi-phase modulation method (Paragraph 0094) and the second area uses a different recording modulation method from the first area (Paragraph 0081).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Senshu (US PgPub 2002/0060968) discloses a disk-like recording medium with a BCA.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas D. Alunkal whose telephone number is (571)270-1127. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571)272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas Alunkal/
Examiner AU 2627


THANG V. TRAN
PRIMARY EXAMINER